

Remarks

This REPLY is in response to the Office Action mailed April 18, 2007. The fee for filing of a Terminal Disclaimer is enclosed herewith. No additional fee is due with this communication.

I. Summary of Examiner's Rejections

In the Office Action mailed April 18, 2007, Claims 1-21 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite. Claims 1, 2, 4-6, 8-9 and 15-16 were also rejected under 35 U.S.C. 112, for lack of antecedent basis. Claims 1-7 were rejected under 35 U.S.C. 101 as being directed to non-statutory subject matter. Claims 1-21 were also provisionally rejected under the doctrine of nonstatutory obviousness-type double patenting as being unpatentable over Claims 1-21 of copending Application Nos. 10/814,200 and 10/814,546. Claims 1, 3-6, 8, 10-13, 15 and 17-20 were rejected under 35 U.S.C. 102(b) as being anticipated by McNeely et al. (U.S. Patent No. 7,117,411, hereafter McNeely). Claims 2, 7, 9, 14, 16 and 21 were rejected under 35 U.S.C. 103(a) as being unpatentable over McNeely.

II. Summary of Applicant's Amendment

The present REPLY cancels Claims 5, 12 and 19; and amends Claims 1-4, 6-11, 13-18, and 20-21, leaving for the Examiner's present consideration Claims 1-4, 6-11, 13-18 and 20-21. An appropriate Terminal Disclaimer is also being filed herewith. Reconsideration of the Application, as amended, is respectfully requested.

III. Claim Rejections under 35 U.S.C. §112

In the Office Action mailed April 18, 2007, Claims 1-21 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention, and for lack of antecedent basis. Accordingly, Claims 1-21 have been amended as shown above. Applicant respectfully submits that the claims as amended now conform to the requirements of 35 U.S.C. 112, and reconsideration thereof is respectfully requested.

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IV. Claim Rejections under 35 U.S.C. §101

In the Office Action mailed April 18, 2007, Claims 1-7 were rejected under 35 U.S.C. 101 as being directed to non-statutory subject matter. Accordingly, Claims 1-7 have been amended as shown above. Applicant respectfully submits that the claims as amended now conform to the requirements of 35 U.S.C. 101, and reconsideration thereof is respectfully requested.

V. Claim Rejections under Double Patenting

In the Office Action mailed April 18, 2007, Claims 1-21 were provisionally rejected under the doctrine of obviousness-type double patenting as being unpatentable over the claims of copending Application Nos. 10/814,200 and 10/814,546.

Accordingly, filed together with this REPLY is an appropriate Terminal Disclaimer in compliance with 37 CFR 1.321. Applicant respectfully submits that the filing of a Terminal Disclaimer renders moot the rejection of the claims under the doctrine of obviousness-type double patenting, and reconsideration thereof is respectfully requested.

VI. Claim Rejections under 35 U.S.C §102(b)

In the Office Action mailed April 18, 2007, Claims 1, 3-6, 8, 10-13, 15 and 17-20 were rejected under 35 U.S.C. 102(b) as being anticipated by McNeely (U.S. Patent No. 7,117,411).

Claim 1

Claim 1 has been amended to more clearly define the embodiment therein. As amended, Claim 1 defines:

- 1: *A system that provides a generic user interface testing framework, and allows a user to test and debug graphical user interfaces for software applications under development, comprising:
 - a computer including a computer readable medium, and a processor operating thereon;
 - a software application source code, stored on the computer readable medium, wherein the software application source code defines a software application under development, including a graphical user interface as part of the software application, and wherein the software application source code executes on the computer to display its graphical user interface;
 - one or more software test tools that are invoked to perform testing operations on the graphical user interface that is displayed while the software application is running;*

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30). The information contained within the test case file identifies one or more of the devices under test. (Column 15, lines 35-36). Consequently, one of the primary objectives or goals of the testing process prior to deployment is to identify and resolve any potential problems in the provisioning of network services that may result from the diverse nature of the collection of network elements. (Column 1, lines 33-37).

It appears from the above description that, as disclosed by McNeely, a test case is used to test various network devices (end products). Prior to testing a network device, a test case is selected for execution by a test operator. The test case selected contains information identifying one or more devices. It appears that any device not contained within the test case must be added to the current test case, or a different test case has to be chosen that contains that device. Consequently, it is the test operator who directs the system to load the appropriate libraries that are associated with the particular devices under test since the system will not load these libraries unless the test operator has included these devices in the test case.

Claim 1, as currently amended, defines an interpretive engine that includes a plurality of dynamically loaded libraries corresponding to a plurality of software test tools. The interpretive engine receives the generic interface commands defined in the test case input file, loads required libraries to map the generic interface commands to corresponding tool-specific testing operations, and invokes the software test tools to perform the testing operations on the software application's graphical user interface. An advantage of this is that different end products and testing packages that test the end products are supported in the same generic UI test framework. Unlike McNeely, the embodiment defined by Claim 1 does not require specifying which end products are to be tested, nor which test tool environment the end products will be tested in.

Furthermore, Applicant respectfully submits that, in McNeely, the resulting device specific language is used to test hardware devices on a network, for example packet switches, database nodes, and routers. In some instances, the device specific language is first communicated to a GUI which controls the device under test. In this situation, communication with GUI-based network devices can occur via a graphical user interface if a suitable GUI tester is added via a new library. For example, in McNeely, a test case contains the testing operation "proc startup { }", wherein proc startup is a procedure code for starting up and logging into each device on the network to verify whether the device is properly functioning. In one instance, proc startup communicates directly with the device to verify the device is properly starting up. In

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a test case input file stored on the computer readable medium, that contains a plurality of generic interface commands, wherein the test case input file can be edited and reused as necessary by a user to specify different generic interface commands for testing against a software application's graphical user interface in the same or a different software test tool; and

an interpretive engine that executes on the computer, and that includes a plurality of dynamically loaded libraries corresponding to the plurality of software test tools, wherein the interpretive engine receives the generic interface commands defined in the test case input file, loads required libraries to map the generic interface commands to corresponding tool-specific testing operations, invokes the software test tools to perform the testing operations on the software application's graphical user interface, and reports the success or failure of the testing operations.

Claim 1 has been amended to more clearly define the embodiment therein as comprising a test case input file containing a plurality of generic interface commands. An interpretive engine translates the generic interface commands and uses a plurality of native libraries to map the commands to tool-specific testing operations. The interpretive engine then invokes the software test tool to perform the testing operations on the software application's graphical user interface and reports the success or failure of the testing operations.

The advantages of the embodiment defined by Claim 1 include that the system maps generic interface commands into tool-specific testing operations. Since the generic user interface (UI) test framework insulates test developers from the tool-specific testing operations of a particular UI testing tool, effort spent testing the build of a UI software application can be reduced, which leads to improvements in the development time, and economic efficiencies. Furthermore the system allows the ability to dynamically load only the desired libraries as needed. For example, in one embodiment test cases can be developed into different functional modules. By developing modular libraries, a test software tool can be developed to identify, load and use those libraries that are applicable to the software applications under test. Since test developers can configure which libraries are applicable to the desired software application(s), the framework is able to accommodate new products with greater flexibility and efficiency.

McNeely discloses an apparatus and method for a communications network test system. As disclosed therein, the test system includes device-specific communication interface packages that map generic commands to device-specific commands. (Abstract). Prior to testing a network device, a test case is selected for execution by a test operator. (Column 15, lines 25-

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another instance, proc startup communicates with a GUI that controls the device and through the GUI the device is tested. As such, it appears that, in McNeely, it is the hardware device that is under test, rather than the GUI controlling the device.

Claim 1 has been amended to more clearly define that the embodiment therein comprises a generic user interface testing framework wherein a plurality of software test tools can be invoked to perform testing operations on a graphical user interface that is displayed while the software application is running. The result of performing the command, i.e., whether the test command was successful, is used to test and debug the graphical user interface itself. Applicant respectfully submits that this testing of the GUI for a software application is different from the network device testing technique disclosed by McNeely.

Claim 1 has also been amended to more clearly define that a test case input file can be reused as necessary by a user to specify different generic interface commands for testing against the software application's graphical user interface in the same or a different software test tool. Consequently as new test tool environments are used, the same test case input file is reusable in that environment. Applicant respectfully submits that McNeely appears to suggest a test case is reusable only with different end products, unlike Claim 1 which defines that a test case input file can be reused with different testing tools.

In view of the above comments, Applicant respectfully submits that Claim 1, as currently amended, is neither anticipated by, nor obvious in view of McNeely, and reconsideration is respectfully requested.

Claims 8 and 15

The comments provided above with respect to Claim 1 are hereby incorporated by reference. For similar reasons as provided above with respect to Claim 1, Applicant respectfully submits that Claims 8 and 15, as amended, are likewise neither anticipated by, nor obvious in view of the cited references, and reconsideration thereof is respectfully requested.

Claims 3-6, 10-13, 17-20

Claims 3-6, 10-13 and 17-20 are not addressed separately, but it is respectfully submitted that these claims are allowable as depending from an allowable independent claim, and further in view of the amendments to those independent claims, and the comments provided above. Applicant respectfully submits that Claims 3-6, 10-13, 17-20, are similarly

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neither anticipated by, nor obvious in view of McNeely, and reconsideration thereof is respectfully requested.

VII. Claim Rejections under 35 U.S.C 103 (a)

In the Office Action mailed April 18, 2007, Claims 2, 7, 9, 14, 16 and 21 were rejected under 35 U.S.C. 103(a) as being unpatentable over McNeely (U.S. Patent No. 7,117,411).

The comments provided above with respect to Claim 1 are hereby incorporated by reference. Claims 2, 7, 9, 14 and 21 are not addressed separately but it is respectfully submitted that these claims are allowable as depending from an allowable independent claim, and further in view of the amendments to those independent claims, and the comments provided above. Applicant respectfully submits that Claims 2, 7, 9, 14 and 21, are similarly neither anticipated by, nor obvious in view of McNeely, and reconsideration thereof is respectfully requested.

VIII. Conclusion

In view of the above amendments and remarks, it is respectfully submitted that all of the claims now pending in the subject patent application should be allowable, and reconsideration thereof is respectfully requested. The Examiner is respectfully requested to telephone the undersigned if he can assist in any way in expediting issuance of a patent.

The Commissioner is authorized to charge any underpayment or credit any overpayment to Deposit Account No. 06-1325 for any matter in connection with this response, including any fee for extension of time, which may be required.

Respectfully submitted,

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By:

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